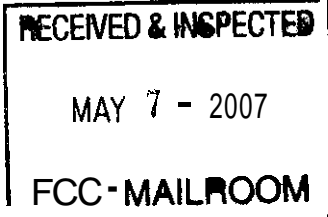

Indiana Rural Health Association



May 4, 2007

Commission's Secretary
Office of the Secretary
Federal Communications Commission
WC Docket No. **02-60**
9300 East Hampton Drive
Capitol Heights, MD **20743**

DOCKET FILE COPY ORIGINAL

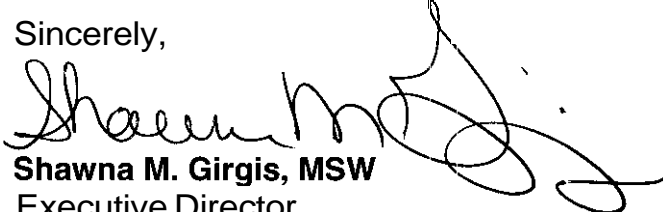
Enclosed with this correspondence, you will find an original and four copies of Indiana's application for funding under the FCC Rural Health Care Pilot Program, WC Docket No. **02-60** to fund the **Indiana Health Network**.

Questions regarding this application should be addressed to:

Shawna Girgis
2900 West **16th** Street
Bedford, IN **47421**
(812) 279-0734
sgirgisirha@ma.rr.com

Thank you for your time and review of this application.

Sincerely,



Shawna M. Girgis, MSW
Executive Director

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Indiana Health Network Project Abstract

Indiana has long been viewed as an innovator in telecommunications policy. Most recently the Indiana General Assembly passed the Indiana Telecommunications Reform Act of 2006. Through this Act, Indiana has recognized that competition is fundamental to the delivery of broadband options to customers. This innovative approach is indicative of the forward thinking at work in Indiana's Telecommunications public policy. This application should be viewed as an extension of this forward thinking and will use the market to deliver the best in broadband technology to Indiana's rural health care providers. If funded, these efforts would establish this network as a unique model for other networks to emulate throughout the County.

This application brings together the Indiana Rural Health Association as the lead applicant; St. Vincent Health System, Clarian Health Partners, Union Hospital's Richard G. Lugar Center for Rural Health, Bloomington Hospital/E-Health Collaborative, and the Indiana Telecommunications Association as co-applicants, which represents unprecedented collaboration in an effort to bring broadband services to Indiana's rural communities and health care providers that will enable the utilization of telehealth applications.

The health related problems to be addressed by *Indiana* Health Network include:

- 1) The need for improved access to health care services and providers for rural residents
- 2) The need for improved access to patient information by health care providers.
- 3) The need for improved health status of rural residents
- 4) The need for improved access to health information, education, and training

The proposed program will address these unmet health needs by providing rural patient with improved access to care, providing a venue that will support health information exchange, and increased participation of health care providers and health students in distance education and training through the implementation of a dedicated, broadband health network. In order to address these problems network members will work collaboratively to maintain the following Critical Success Factors:

- **Leadership:** Tapping visionary leaders is key for rural communities to address quality of life issues.
- **Planning:** Communities, organizations, and governments must look ahead to determine the impact of today's decisions and actions. Good planning allows questions to be answered before they are asked.
- **Collaboration and Partnerships:** More than ever, rural leaders need to look beyond their own communities and organizations for solutions.
- **Flexibility:** Solutions and tools will vary by county and community. Flexibility is critical.
- **Collecting and Sharing Ideas:** Ideas should be respected and shared, and be "community driven".
- **Involving Citizens:** communities will need to inform and assist citizens and local business about the opportunities for participation in this program. Good planning with the involvement of citizens and business will allow them to decide what role they can best fill and are allowed to share ideas on the project.
- **Centralized Project Coordination:** The lessons learned from rural hospital projects can be combined and lessons learned in one region might be shared with others in different regions. Improved coordination could result in a more affordable project.

◆ **ESTIMATE THE NETWORK'S TOTAL COSTS FOR EACH YEAR' (Requirement 3).**

Indiana FCC Grant - Budgeted Project Expenses - YEAR 1			
1. Rural Hosp. site upgrades. Year One (1)	Other Itemized Costs	estimated average per CAH site costs	Extended Cost
Blackford County Hospital		\$ 8,000	\$ 8,000
Bloomington Hospital -Orange Co.		\$ 8,000	\$ 8,000
Daviess Community Hospital		\$ 8,000	\$ 8,000
Greene County General Hospital		\$ 8,000	\$ 8,000
Jasper County Hospital		\$ 8,000	\$ 8,000
Jay County Hospital		\$ 8,000	\$ 8,000
LaGrange Community Hospital		\$ 8,000	\$ 8,000
Margaret Mary Community Hospital		\$ 8,000	\$ 8,000
Pulaski Memorial Hospital		\$ 8,000	\$ 8,000
Rush Memorial Hospital		\$ 8,000	\$ 8,000
St. Vincent Clay Hospital		\$ 8,000	\$ 8,000
St. Vincent Williamsport Hospital		\$ 8,000	\$ 8,000
St. Vincent Frankfort Hospital		\$ 8,000	\$ 8,000
St. Vincent Mercy Hospital		\$ 8,000	\$ 8,000
St. Vincent Jennings Hospital		\$ 8,000	\$ 8,000
St. Vincent Randolph Hospital		\$ 8,000	\$ 8,000
West Central Community Hospital		\$ 8,000	\$ 8,000
White County Memorial Hospital		\$ 8,000	\$ 8,000
sub-total	n/a	> > > > >	\$ 144,000
. Attorney Fees: Network Design	n/a	\$ 21,600	\$ 21,600
. Consultant-Network Design Study	n/a	\$ 30,000	\$ 30,000
. Year One HI Rural Hospital Sites	Miles to Nearest Fiber Connected	Cost to Connect Per Mile	Fiber Connector Extended Cost
Blackford County Hospital	1	\$ 40,000	\$ 480,000
Bloomington Hospital -Orange Co.	1	\$ 40,000	\$ 600,000
Daviess Community Hospital	2	\$ 40,000	\$ 800,000
Greene County General Hospital	1	\$ 40,000	\$ 520,000
Jasper County Hospital		\$ 40,000	\$ 320,000
Jay County Hospital	2	\$ 40,000	\$ 800,000
LaGrange Community Hospital	2	\$ 40,000	\$ 880,000
Margaret Mary community Hospital		\$ 40,000	\$ 40,000
Pulaski Memorial Hospital		\$ 40,000	\$ 240,000
Rush Memorial Hospital	1	\$ 40,000	\$ 560,000
St. Vincent Clay Hospital		\$ 40,000	\$ 40,000
St. Vincent Williamsport Hospital	4	\$ 40,000	\$ 1,800,000
St. Vincent Frankfort Hospital		\$ 40,000	\$ 200,000
St. Vincent Mercy Hospital		\$ 40,000	\$ 240,000
St. Vincent Jennings Hospital	1	\$ 40,000	\$ 560,000
St. Vincent Randolph Hospital	3	\$ 40,000	\$ 1,320,000
West Central Community Hospital	1	\$ 40,000	\$ 600,000
White County Memorial Hospital		\$ 40,000	\$ 120,000
Anticipated Year One, 18 hospital sub-total & total miles:	253	> > > > >	\$ 10,120,000
<u>Year One (1) Summary:</u>			
Total Anticipated Project Costs - Year One, for 18 Rural Hospital locations:			\$ 10,315,600
Indiana 15% match of total request:			\$ 1,547,340
Net FCC Request - Year One (1)			\$ 8,768,260

¹ Federal Communications Commission. Rural Health Care Support Mechanism. WC Docket No. 02-60. September 2006. page 6.

◆ **ESTIMATE THE NETWORK'S TOTAL COSTS FOR EACH YEAR² (Requirement 3).**

Indiana FCC Grant - Budgeted Project Expenses - YEAR 2

1. Rural Hosp. site upgrades - Year Two (2)	Other Itemized Costs	estimated average per CAH site costs	Extended Cost
Adams Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
Community Hospital of Bremen	\$ -	\$ 8,000	\$ 8,000
Decatur County Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
Gibson General Hospital	\$ -	\$ 8,000	\$ 8,000
Harrison County Hospital	\$ -	\$ 8,000	\$ 8,000
Perry County Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
Putnam county Hospital	\$ -	\$ 8,000	\$ 8,000
Scott County memorial Hospital	\$ -	\$ 8,000	\$ 8,000
sullivan County Community Hospital	\$ -	\$ 8,000	\$ 8,000
Tipton Hospital	\$ -	\$ 8,000	\$ 8,000
Washington County Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
Woodlawn Hospital - Rochester	\$ -	\$ 8,000	\$ 8,000
Bedford Regional Medical Center	\$ -	\$ 8,000	\$ 8,000
Cameron Memorial Community Hosp.	\$ -	\$ 8,000	\$ 8,000
Dukes Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
Dunn Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
Logansport Memorial Hospital	\$ -	\$ 8,000	\$ 8,000
St. Mary's Warrick	\$ -	\$ 8,000	\$ 8,000
sub-total-site upgrades	n/a	> > > > >	\$ 144,000
. Attornev Fees: Net. Design-Yr. 2	n/a	\$ 21,600	\$ 21,600
. Consultant-Network Desian Study	n/a	\$ 30,000	\$ 30,000
1. Year Two (2) Rural Hospital Sites	Miles to Nearest Fiber Connect	Cost to Connect Per Mile	Fiber Connection Extended Cost
Decatur County Memorial Hospital	1	\$ 40,000	\$ 40,000
Gibson General Hospital	30	\$ 40,000	\$ 1,200,000
Harrison County Hospital	18	\$ 40,000	\$ 720,000
Perry County Memorial Hospital	15	\$ 40,000	\$ 600,000
Putnam county Hospital	3	\$ 40,000	\$ 120,000
tt C n memorial sit	1	\$ 40,000	\$ 40,000
sullivan County Community Hospital	1	\$ 40,000	\$ 40,000
Tipton Hospital	1	\$ 40,000	\$ 40,000
Washington County Memorial Hospital	10	\$ 40,000	\$ 400,000
Woodlawn Hospital - Rochester	1	\$ 40,000	\$ 40,000
ird Re n ilc Center	25	\$ 40,000	\$ 1,000,000
Cameron Memorial Community Hosp.	22	\$ 40,000	\$ 880,000
Dukes rial H	15	\$ 40,000	\$ 600,000
Dunn rial H	25	\$ 40,000	\$ 1,000,000
t M. sit	18	\$ 40,000	\$ 720,000
St. ry Warrick	25	\$ 40,000	\$ 1,000,000
Anticipated Year Two (2) - 18 hospital			
sub total d total miles:	211	> > > > >	\$ 8,440,000
. Connection to Internet2-Yr 2			\$ 35,000
Year Two (2) Summary:			
Total Anticipated Project Costs - Year Two - for 16 Rural Hospital locations:			\$ 8,670,600
net 15% match of total request:			\$ 1,300,590
Net FCC Request - Anticipated Year Two (2)			\$ 7,370,010

² Federal Communications Commission. Rural Health Care Support Mechanism. WC Docket No. 02-60. September 2006. page 6.

Budget Justification Narrative:

The budget for the FCC Rural Telemedicine Grant program are built upon several broad assumptions that have been made based on planning discussions that have occurred in with a small group of key stakeholders in the past 90 days. Those key stakeholders include rural hospital members of the Indiana Rural Health Association and membership from the Indiana Telecommunications Association.

Based on the provided guidance in the FCC Communications, we request funding for this project in these identified areas:

1. Rural Hospital Site Upgradeis
2. Attorney Fees Associated with Network Design
3. Consultant Fees: to complete a network design study
4. Installation of Fiber Optic Communications to Rural Hospitals

In general, all project costs are included in the estimates

1) Rural Hospital Site Upgrades .-“Anchor Tenant” concept\$144,000

We anticipate using an “anchor tenant” strategy where up to 100MG fiber connectivity will be installed and brought to each eligible community rural hospital. From this connection, the telecommunications providers would plan to scale down the line into smaller connections and run those lines to other key strategic:business partners in each rural community. Those locations might he local business, pharmacies, physician offices, or others. Therefore, multiple lines will spin-off from the rural hospital throughout the community.

When each rural hospital project is initiated, there will be significant effort to work with the leadership in that rural community, and to connect into their business development groups (if they exist). Most community needs assessments have identified high speed communications as an urgent business need. This project will create the urgency to talk about high speed communication, discuss the issue in local newspapers and public forums, etc. bringing more focused discussion to the issue as the project beings.

At the beginning of this project, we determined very early that each rural hospital had a technology plan and set of technology standards that was unique. Therefore, it was impossible to determine what the individual needs were of 35 critical access rural hospitals on such short notice. However, in consultation with the telecommunications providers, we determined a price of \$8,000 that we thought would cover – on average – the needs of most of the rural hospitals. Those with newer technology might be able to connect to the Indiana Health Network at virtually no additional costs or upgrades, while another hospital might cost over \$10,000 in upgrading their equipment to connect. Therefore we used an average of \$8,000 per site.

Typical equipment upgrades needed at rural hospitals will include the price of routers, router upgrades, and Ethernet switches, other switches, circuit upgrades, Ethernet convection testing and switch testing. In many cases, each telecommunications carrier will need to add specific equipment, and that expense will be delivered and installed, and then become a part of the overall carrier service agreement and that cost would be factored into the monthly recurring charges by that carrier.

2) Attorney Fees Associated with Network Design\$21,600

In Indiana, we have determined the political environment for these discussions is very good, and the relationships with both healthcare, state government and the telecommunications industry are fairly strong. It would be our intention to take a strong, proactive stance in providing strong project management, strong communications on project issues, and strong meeting management and facilitation. Due to the extremely large number of interested healthcare and telecommunications players at the table, we felt some level of attorney facilitation was needed to keep groups on track with issue discussion, problem resolution, and for more effective group decision-making.

At this early date, the only committee group we felt this was necessary was the Technology / Network Design Committee which has many early issues to work through in the project work plan. Proactive use of attorney facilitation for these meetings should be a good investment if problem resolution can be quickly engaged during the network design discussion. The attorney being consider for this work is also works on a regular basis with the Universal Service Administrative Corp. and would be in a good position to explain the FCC rules, while knowing first-hand the USAC bidding and RFP process.

Since the attorney time is specifically being leveraged toward the network design work effort, we have included the cost in this budget. We anticipate attorney time be needed for two (2) meetings per month, with six (6) billable hours per meeting, for twelve (12) months, at \$150 per hour. This equates to \$21,600 for the year to support the functionality of the Technology Committee.

3) Consultant – Network Design Study\$30,000

In the initial weeks of this project, we plan to engage a group for a comprehensive network design study. A statewide inventory and mapping of the existing telecommunications infrastructure should be performed before this project begins. Such an evaluation should describe the service availability, type and quality; service providers in each market; network performance; and cost. An additional survey should be conducted uniformly throughout the state in accordance with other Computer Systems Policy Project recommendations (or other studies in the past 3-5 years) to understand which areas are underserved, where demand is anticipated, and how gaps in service delivery can be addressed. SCPP is a national association of leading information technology firms.

When selecting the vendor for this work, the Advisory Board for this project will identify interested vendors for the assessment. While information about the telecommunications industry is necessary, it is not the sole selection criteria and different vendor options will be fully explored. We estimate no more than 200 hours for this work at an average hourly rate of \$150 per hour, which totals \$30,000.

4) Installation of Fiber Optic Communications to Rural Hospitals..\$10,315,600

Our technology plan will call for the installation of fiber optics. Fiber optics has become widely used in telecommunications because of its enormous bandwidth and distance advantages over copper wires. Material costs, installation and splicing labor and reliability are all in the fiber's

favor, not to mention space considerations upon installation. On this particular project, the distances involved go over 50 to 100 meters which tend to dictate a fiber solution. The bandwidth / distance issue is what usually convinces the user to switch to the fiber option. For speeds above 10 Mb/s the more attractive option is fiber. Single mode fiber offers virtually unlimited bandwidth, especially with DWDM (dense wavelength division multiplexing). For these reasons, we have included pricing for this option to connect **from** existing fiber connections throughout Indiana and **connect to** the rural hospitals. We have made estimates on mileage from existing fiber points to all 35 critical access hospitals. We may consider other rural hospitals as well if funds are available. Final decisions on the network design and configuration will be delegated to the Technology / Network Design Committee, and that group will secure a consultant to assist us in the assessment process (discussed above in #3)

In discussions with telecommunications providers leading up to this proposal, we received two (2) possible bid estimates from two **totally** independent vendors on opposite ends of the State of Indiana. One bid was for approximately \$30,000 per mile of line installed; and the second was for \$50,000 per mile of line installed. Therefore, our estimate per mile was the average of these two, or \$40,000 per mile for budget calculation purposes.

The network will be managed locally and the service provided will be carrier driven. Service level agreements (SLA's) are a common backbone of service models in the telecommunications industry. These agreements between telecommunications providers help the industry police itself. In this way, problems that occur that take down entire networks for periods of time are minimized when the SLA agreements have language that dictate agreed upon repair times, agreed upon service expectations, technical quality standards of service, and financial credits from the carrier responsible for the :problem if these terms are not met per the SLA.

The cost estimates provided include multiple conductor fiber to allow for maximum interconnectivity, buried line installation (hand holes for splice points, splicing, ducts construction, concrete enclosures, testing of line, trouble shooting, engineering and site survey work, programming and project management services that will be needed to connect to each rural hospital, implementation of a plan for installation of fiber into **an** identified rural community. A significant amount of the timeline is absorbed with making applications for permits and filing paperwork with state, local, and county officials on the project work. **All** efforts will be extended to leverage the cost of existing network infrastructure to improve / increase functionality while improving long term sustainability of the fiber network.

The latest technology regarding data transport, such as Ethernet, MPLS (multiple protocol label services), virtual private network (VPN) and will be designed to incorporate existing technology into future technology solutions. Telecommunications providers will facilitate these discussions with the rural health care clients to create a localized technology plan for their future needs. The benefits are significant in that this becomes a private network with private telecommunications providers while enabling the State of Indiana no need to financially subsidize the day-to-day telecommunications operations throughout the State.

5) Internet2 Connection. \$35,000

The Indiana Health Network would utilize the experience and expertise of the Indiana University Global Research Network Operations Center, to connect to the Gigapop, Internet2 and National Lambda Rail. The Indiana Gigapop is a project of Indiana University and Purdue University. Since 1999 the Gigapop has provided higher education institutions access to national research and education high performance networks. Both the Internet2 network and National Lambda Rail networks, as well as commodity internet are available today via the Gigapop. The *Indiana Health Network's* connection to Internet2 would be aggregated and provided at one fee that would service all network members. The Indiana Rural Health Association has received a commitment from the Indiana University GRNOC to provide the network with connection to Internet2 once operational. It is anticipated that this would occur during year 2 of project implementation. This would effectively expand the footprint of Internet2.

◆ **ESTIMATE THE NETWORK'S TOTAL COSTS FOR EACH YEAR' (Requirement 3).**

Request for Funding:

The total expenses associated with the first year operation of the Indiana Health Network as described in this application is \$10,315,600 and the amount requested from the FCC is \$8,768,260. The remaining \$1,547,340 will be covered through matching funds. Accordingly, **the network members respectfully requests \$8,768,260 to initiate and operate the *Indiana Health Network*.**

Staffing Plan and Personnel Requirements

To successfully implement the *Indiana Health Network* the members have assembled a team of highly qualified professionals with a broad spectrum of expertise. These areas of expertise include broadband network development, HIT utilization, telehealth application implementation, rural health care delivery, expertise in administering grant funded projects, and evaluating rural health programs. Below are description of the identified key staff members for this project and their roles in the network.

Ms. Shawna Girgis:

Ms. Girgis is a graduate of Indiana University where she earned a Master of Social Work degree. She was employed by Hoosier Uplands Economic Development Corporation in Mitchell, Indiana for six years where she served as the Southeast/South Central Indiana Area Health Education Center (AHEC) Director. Ms. Girgis began as the Executive Director of the Indiana Rural Health Association in June 2005 after serving on the organizations Board of Directors for four years and serving as the organizations President during 2003 – 2004. Ms. Girgis' areas of expertise include rural health initiatives, coalition building, grant writing, program development, program implementation, and program evaluation coordination. The Indiana Rural Health Association is currently implementing a project that is funded by HRSA's, Office of Rural Health Policy Network Planning Grant to develop the Indiana Statewide Rural Health Network, a consortium of rural health care providers throughout the State of Indiana. This project is being implemented in collaboration with the Indiana Hospital & Health Association; Health Care Excel, Indiana's Quality Improvement Organization; the Richard G. Lugar Center for Rural Health; and many of Indiana's rural hospitals and affiliated rural health clinics. As the Executive Director of

³ Federal Communications Commission. Rural Health Care Support Mechanism. WC Docket No. 02-60 September 2006. page 6.

the Indiana Rural Health Association and the lead applicant for funding via the FCCs Rural Health Pilot Program, Ms. Girgis will be responsible to the FCC for activities related to this project and will provide oversight to the InHN Project Director and Project Assistant. In addition, Ms. Girgis will work in collaboration with the identified co-applicant organization representatives, network members,,and statewide partner organizations. It is anticipated that Ms. Girgis will contribute approximately 8 hours per week (.20 FTE) to In ' activities. A copy of Ms. Girgis' resume has been included in Appendix A on pages 86 - 88.

Mr. John Winenger:

John has worked for over 20 years in health care administration at various levels of management. For the past 8 years at St. Vincent., he has worked to help develop operations infrastructure throughout their regional delivery system, spread throughout 45 counties in central Indiana. Areas of interest include operations, leadership development, business development, and evolving hospital and business partnerships where vision, leadership, and market understanding is essential. In the past 4 years, John has been active in Indiana's development of a proactive telemedicine strategy to push forward new and innovative ways to deliver care to rural and under-served regions of Indiana. John has led efforts at St. Vincent to help secure over \$1 million in grant funding to support the critical access hospital sites and their owned rural health clinics. He has also served the past 6 years as Treasurer of the Indiana Rural Health Association (IRHA). He will help represent St. Vincent Health and their rural Critical Access Hospitals on a HRSA Network Development Grant received by IRHA. He has also been an active participant in Indiana's RISE 2020 Rural Strategic Plan Initiatives under the direction of Lt. Governor Becky Skillman. Lastly, John directed efforts by St. Vincent to successfully sponsor the central Indiana Area Health Education Center (AHEC). The HRSA sponsored AHEC programs supports and helps develop linkages between health care providers in rural, under-served markets and students seeking careers in the health care field. Mr. Winenger's resume has been included in Appendix A on pages 89 – 90.

Ms. Jennifer Baron:

Ms. Baron received a Bachelor of Science in Telecommunications from Ball State University in Muncie, Indiana in 1992. She has worked for Clarian Health for 14 years in various roles. She was instrumental in the development and start up of Clarian On-Call consumer referral and consultation phone service and worked with referring physicians statewide as a resource coordinator in the IMACS physician referral and consultation area. As Service Excellence Project Leader Jennifer worked with Riley Hospital for Children to develop service action plans which lead to patient satisfaction rates in the 90th percentile. She served on the Executive Steering Committee for Family Centered Care at Riley Hospital and successfully implemented a Family as Faculty program at Indiana University Hospital. In 2004 Jennifer transitioned into role of Physician Liaison promoting Clarian's pediatric service line to referring physicians and hospitals statewide. In May 2006 Jennifer began her role as Telemedicine Program Director and has successfully transitioned Clarian Telemedicine from a grant funded program to a fully integrated program functioning as an operational department at Clarian Health. Ms. Baron's resume has been included in Appendix A on pages 91 - 93.

Dr. Todd Rowland:

Dr. Rowland is the Director of Medical Informatics for Bloomington Hospital and Executive Director of the Bloomington E-Health Collaborative. He is a native of Indiana and attended Wabash College graduating with Summa Cum Laude and Phi Beta Kappa honors in 1985. He received his Doctorate of Medicine from Indiana University in 1989. He completed his clinical specialty training in Physical Medicine and Rehabilitation as well as Electrodiagnostic Medicine at Ohio State University, where he served as chief resident in his final year of training. He received his Board Certification in Physical Medicine and Rehabilitation in 1994 and in Electrodiagnosis in 1995. He has worked in a variety of medical settings including the Brigham and Women's Hospital, part of the Harvard Medical system. He completed a Post-Graduate Fellowship in Medical Informatics; at the Harvard/MIT combined program in 1998 and continues to work in medical informatics. Dr. Rowland is also the Executive Director of the E-Health Collaborative, which supports development of a patient focused integrated health care delivery system that can access and exchange secure, confidential data across geographic and organization boundaries for the purpose of significantly improving quality of care at a reasonable cost, access to services, and operational efficiencies. Mr. Rowland's resume has been included in Appendix A on page 94.

Mr. Eric Southard:

Erik Southard is a graduate of Indiana State University in Terre Haute, Indiana where he completed his Master of Science in Nursing in 2003. He worked for Union Hospital Health Group as a float nurse for four years and also as an intensive care nurse while finishing his nurse practitioner degree. After completing his masters' thesis on chronic disease management for diabetes he began work as a Project Associate for the Richard G. Lugar Center for Rural Health, formerly Midwest Center for Rural Health. Southard now serves as the Director of Special Projects at Lugar Center. Southard has been instrumental in the growth of telemedicine at the Richard G. Lugar Center and around the state. He has also been involved in employee wellness, electronic medical records (EMRs) and chronic disease management (CDM) projects at the center. His clinical experiences include industrial, correctional and indigent care populations. Southard is active in grant writing, project implementation, management and evaluation at Lugar Center. Southard also serves as the Vice-chairman for the Telehealth Advisory Consortium and travels around the state providing education on CDM, EMRs and telemedicine. Southard will play an advisory role on the telehealth applications committee for the Indiana Health Network. Southard will also serve as a communications liaison back to Dr. James Turner, Director of the Richard G. Lugar Center and Sarah Snider, Administrator for the Lugar Center. Resumes for Dr. Turner and Ms. Snider will be provided upon request. Mr. Southard's resume has been included in Appendix A on pages 95 - 99.

Mr. John Koppin:

John Koppin has been president of the Indiana Telecommunications Association (ITA) for 14 years. In this capacity, Mr. Koppin advocates on behalf of the combined industry in state legislative, regulatory and public policy discussions. During his tenure, Mr. Koppin has been directly involved in passing the Indiana Telecommunications Reform Act of 2006, the most sweeping revision of the telecom industry in the country. This move to a full deregulation has resulted in \$500 million of new investment in Indiana and 1200 new telecom jobs. He was also involved in implementing Enhanced 911 in Indiana, developing Indiana's deaf relay system,

creating the wireless 911 board, and permitting small Indiana telecommunications companies to be deregulated. He regularly testifies before legislative committees on matters affecting the membership. He has also participated in Indiana Utility Regulatory Commission workshops, committees and other forums.

Prior to joining the ITA, he held positions in state government including Chief Deputy Director of the Indiana Professional Licensing Agency, Assistant to the Indiana Secretary of State and Staff Assistant to the Indiana House of Representatives Ways and Means Committee. Mr. Koppin is an officer and Board member of the Indiana Legal Foundation, is a past board member of the Indiana Governmental Affairs Society and has chaired the National Council of State Telecom Association Executives. He is a member of the Indiana and American Societies of Association Executives. Koppin holds a BA in Political Science and English from Wheaton College and a Masters Degree in Public Affairs-Finance from Indiana University. He also holds the professional designation Certified Association Executive (CAE) from the American Society of Association Executives. Mr. Koppin's resume has been included in Appendix A on pages 100 - 102.

To insure the successful development and implementation of the *Indiana Health Network* the Indiana Rural Health Association as the lead applicant, with the support of the co-applicant organizations including Clarian Health Partners, St. Vincent Healthcare System, Bloomington Hospital/Bloomington E-Health Collaborative, Union Hospital's Richard G. Lugar Center for Rural Health, and the Indiana Telecommunications Association will hire a full-time Project Director and full-time Project Assistant. These two individuals would be directly responsible to the Executive Director of the Indiana Rural Health Association and would also receive direction from staff members of the co-applicant organizations and advisory board members as deemed appropriate. Selection of the *Indiana Health Network* Project Director would be made in collaboration with selected members of the advisory board to insure that the selected individual has the expertise and shared vision of the network that will insure the attainment of network goals and objectives. A job description for both Project Director and Project Assistant has been included in Appendix B on pages 103 - 104.

PROJECT NARRATIVE

Description of Need:

Target Population:

The target population for the *Indiana Health Network* will ultimately include all residents that reside in or receive health care within the State of Indiana, with a particular focus on meeting the health care needs of rural providers and patients. The benefit of this network will increase as collaborations with other states are established. Patients that have chronic diseases and senior citizens will benefit greatly from network activities given the fact that many seniors develop multiple chronic illnesses as they age requiring multiple health care visits and specialists.

◆ **"THE APPLICANT PRESENTS A STRATEGY FOR AGGREGATING THE SPECIFIC NEEDS OF HEALTH CARE PROVIDERS, INCLUDING PROVIDERS THAT SERVE RURAL AREAS, WITHIN A STATE OR REGION" (FCC 06-144)⁴**

Unmet Health Needs:

The health related problems to be addressed by *Indiana Health Network* include:

- 1) The need for improved access to health care services and providers for rural residents in Indiana.
- 2) The need for improved access to patient information by health care providers.
- 3) The need for improved health status of rural residents in the network service area.
- 4) The need for improved access to health information, education, and training by health care providers in Indiana.

The proposed program will address these unmet health needs by providing the rural patient with improved access to quality care, providing a venue that will support health information exchange, and increased participation of health care providers and health professional students to distance education and training.

Demographic Data:

Populations residing in rural Indiana and its multiple isolated areas face special barriers in accessing timely, quality health care. Rural Hoosiers often suffer from shortages of physicians and other health care providers. Additionally, given the current rural health delivery system and poor infrastructure, the cost of accessing quality health care often exhausts the available resources. Of the 60 million Americans residing in rural areas, more than 33% of them have inadequate access to quality health care services. Nearly 30 million rural Americans have at least one chronic illness yet rural residents average fewer annual provider visits than their urban counterparts. Despite experiencing equal or higher rates of alcoholism, drug abuse, and mental illness, many rural residents remain undiagnosed or treated simply due to the lack of health care professionals.

According to the Indiana State Medical Association, only 13 percent of Indiana active-care physicians are actively living in and serving rural areas with the rest clustered in major Hoosier urban areas. As Indiana's issues are similar to what is faced by its neighboring states, the challenge is epidemic.

The challenges of health professional shortages are amplified in rural Indiana given the elevated rates of tobacco use, obesity, diabetes, and hypertension. These rates are directly linked to higher rates of cancer and heart disease in rural versus urban counties. While these all-too-common health problems can be improved through increased physical activity and improved nutrition, the barriers associated with rural living, such as limited sidewalks, fitness centers, walking trails, as well as lower socio-economic status make access to these resources a challenge.

⁴ Federal Communications Commission. Rural Health Care Support Mechanism. WC Docket No. 02-60. September 2006. page 6.

According to the Economic Research Service, the average per-capita income for all Hoosiers in 2004 was \$30,204, although rural per-capita income lagged at \$26,166. 2003 estimates indicate a poverty rate of 9.5% exists in rural Indiana, compared to a 10.1% level in urban areas of the state. Data from 2000 finds that 20.9% of the rural population has not completed high school, while only 16.9% of the urban population lacks a high school diploma. The unemployment rate in rural Indiana is at 5.9%, while in urban Indiana it is at 5.3% (USDA-ERS, 2005).

According to a March 2004 NRHA Policy Brief (which utilizes statistics from numbers based on the Medical Expenditure Panel Survey), rural Americans have an uninsured rate of approximately six percent higher than their urban counterparts. Rural Americans also have an employer-sponsored coverage rate that is 11.5 percent lower than the urban rate. Rural Americans are twice as likely to work for a low-wage employer. Low-wage workers receive health coverage 32% of the time, while 77% percent of other workers are offered coverage.

According to the U.S. Census Bureau, the increase in the rate of uninsured Americans from 15.2 percent to 15.6 percent is largely due to a decline in employer-sponsored coverage. The percentage of Americans who are covered by their employers fell to 60.4 percent in 2003 from 61.3 percent in 2002. For rural Americans this represents a further decline in coverage source that is already disturbing.

The health of Indiana's rural residents and their access to quality health care, public health services and preventive health programs differ from urban residents. Approximately 19% of Indiana's rural population find themselves uninsured, while others remain underinsured. These statistics are no surprise given the current economic climate **and** the rising cost of health insurance. The number of uninsured and underinsured residents has increased and is causing more individuals to turn to the Indiana Medicaid program and safety net providers for basic health services, which places a financial strain on these already-stressed programs.

Health Data & Statistics:

Sadly, poverty is associated with poorer health and with the decreased use of health services. In fact, "rural residents, including rural elders, have lower average incomes and higher poverty rates than do urban residents, and have fewer contacts with physicians and hospitals. As hospitals and physicians are a source of health promotion, disease prevention programs, services, and information, an impoverished older person is both less likely to know of programs and less likely to be able to pay for health promotion or disease and disability prevention services."⁵ In keeping with data from this study, the rate of poverty in rural Indiana is above both the state and national averages; 16 of Indiana's rural counties have no hospital within their borders; all many of Indiana's rural counties have some level of health professional shortage designation.

Accordingly, we can assume that residents within this rural service area have **more barriers** to face in order to access health care: and **will have poorer health outcomes than their non-rural counterparts**. The needs of this population are amplified by the unique conditions indigenous to

⁵ Krout, J.A. (1994). Providing community-based services to the elderly. Thousand Oaks, California: Sage Publications. (Krout, 1994, p. 185-186).

rural areas, which include “isolation, limited availability of resources, services and facilities that are widely dispersed, poor conditions of rural roads, and rising costs.”⁶

This knowledge is very alarming when one considers the generally poor health indicators that exist for the entire State of Indiana. Indiana is ranked as the 5th highest state for prevalence in smoking, 10th for obesity, 12th for diabetes, 15th for self-reported poor or fair health, and 19th for overweight residents. While these numbers are less than favorable these poor health indicators are further complicated by the fact that fewer Indiana residents are receiving the preventative care that is recommended and needed to enable early diagnosis of illness. This is evidenced by the fact that Indiana ranked 40th for the percentage of women who received mammograms as recommended within the past two years and 41st for the number of individuals that had ever received a sigmoidoscopy or colonoscopy.⁷

In addition to health outcomes, rural residents face other difficulties including a digital divide that makes access to internet technology more challenging given increased costs for ongoing Internet connectivity that will support HIT applications. In addition, rural providers experience greater difficulty supporting start-up expenses for HIT and EHR given the scarce availability of resources related to the higher percentage of patients that utilize Medicaid and sliding fee scales.

Description and Map of the Service Area:

The state of Indiana is predominantly rural with 35 Critical Access Hospitals and 57 Rural Health Clinics located throughout the state. It is a well-known fact that these rural health care facilities comprise the rural health care safety net in rural Indiana. As safety net providers, many rural hospitals are Disproportionate Share Hospitals (DSH); Rural Health Clinics have a higher proportion of Medicaid, Medicare, underinsured and/or uninsured patients; and many rural providers offer a sliding fee scale. Accordingly, most rural facilities have a smaller number of staff members, which limits the ability to participate in education programs/continuing medical education, and are at greater financial risk than their urban/suburban counterparts. A map showing the rural areas of Indiana, the Health Professional Shortage Areas throughout the state, and locations of the targeted rural health providers including rural hospitals and federally designated Rural Health Clinics has been included in Appendix C on page 105.

Strategy Alignment Opportunities Afforded by the Indiana Health Network:

We have identified ten (10) critical initiatives/projects that have occurred in the past five years throughout the State of Indiana that bring focused strategy alignment to the *Indiana Health Network*. Specifically, those include:

1. Trauma System Development - 2006 / 2007
2. Indiana USDA Sponsored Report from 2002
3. Indiana RISE 2020 Rural Strategy Development -2006 / 2007
4. Purdue Regenstrief Telemedicine Study from 2006
5. Indiana State Department of Health – Telemedicine Report – 2007

⁶ Krout, J.A. (1994). Providing community-based services to the elderly. Thousand Oaks, California: Sage Publications. (Krout, 1994, p. 185-186).

⁷ State Prevalence Rankings: BRFSS, 2002: www.state.in.us/isdh/dataandstats/brfss/2002/rank2002/htm.

6. Indiana Medicaid Policy – Approval for Telemedicine Payment – 2007
7. Senate Bill **566** – Medical Informatics Focus
8. Indiana Office of Rural Health – Rural Health Works Project – 2004 to present
9. Internet2 Strategy Development
10. 10) HRSA awards Purdue University Regenstrief Center \$1 million for partnership to research benefits of tele-health networks for 2007-2009.
11. Indiana Statewide Rural Health Network Planning Grant – March 2007 – present
12. Healthy People 2010

Each of the previously listed initiatives/projects will be addressed in the following section and will describe how each support the development of the Indiana Health Network.

1. ISDH Leads Statewide Study of Trauma System: A trauma system is an organized, coordinated effort to deliver the full range of care to injured patients, including pre-hospital assessment, hospital emergency department evaluation and care, hospitalization (often with surgical intervention), and rehabilitation.

Until March 2006, Indiana was one of two states without any state legislation or state government programming that addressed a statewide trauma system. Trauma refers to people who sustain severe injuries and thus, need rapid evaluation by pre-hospital providers and transport to specific trauma center hospitals with trauma care capabilities. These trauma center hospitals provide comprehensive medical and surgical services that are available at all times. While trauma center hospitals have emergency departments that are well staffed and well equipped to care for Hoosiers who receive severe or extensive injuries, not all hospital emergency departments are trauma centers, which is contrary to popular belief.

The goal of a statewide trauma system is to prevent injuries and coordinate care of injured patients in order to accomplish decreased death and disability of Indiana residents related to traumatic injuries. Injuries are the leading cause of death for Hoosiers ages 1-34 years both in Indiana and in the United States. Indiana hospital discharge data for 2002 show that injuries account for 33% (one third) of hospital emergency department visits and 12.5% of hospital discharges.

In 2002, a national assessment by the Trauma-Emergency Medical Services Program of the federal Health Resources and Services Administration (HRSA) demonstrated that emergency medical services (EMS) resources; are well developed in Indiana. In sharp contrast, no trauma system existed, according to the criteria used in this assessment.

Indiana's situation related to the deficiency of a statewide trauma system greatly improved when the state legislature passed Senate Bill 284 this year. This legislation provides a starting point for development of a statewide trauma system by designating the Indiana State Department of Health as the lead state agency for trauma system development. It sets the stage for future work that is needed in Indiana by denoting the ability to develop rules pertinent to a state trauma registry and a designation process for various levels of trauma care that can be rendered by hospitals. With rule-making authority, the Indiana State Department of Health and the Advisory

Task Force for Trauma System/Emergency Preparedness (Task Force) can proceed with developing the necessary components of a system, which generally include: (1) a trauma registry, (2) standards and procedures for designation of levels of trauma care provided by hospitals, and (3) guidelines or protocols for patient transport and trauma care. This developmental process will take several years to complete.

The Indiana State Department of Health Task Force, with over 50 members, has been meeting regularly since May 2004 to address trauma system issues. This Task Force has representation from all 10 Indiana Public Health Preparedness Districts and from the state Emergency Medical Services Department, part of the Indiana Department of Homeland Security. The participants come from a variety of hospitals and health professions and also include administrators and several legislators. Organizations involved include the Indiana Hospital & Health Association, the Indiana Rural Health Association, the Indiana State Medical Association, the Indiana Trauma Network, and representation from the Indiana Chapters of the American College of Emergency Physicians, the Emergency Nurses Association, and the American College of Surgeons. Task Force meetings, held quarterly, have attendance of 30 or more members, and include lively discussions regarding a wide range of issues.

Seven Indiana hospitals have undergone a comprehensive review process to meet the stringent American College of Surgeons Committee on Trauma criteria to achieve verification as either a Level I or Level II trauma center, which are able to provide comprehensive trauma care. These hospitals include Wishard Memorial Hospital, Clarian Methodist Hospital, and Riley Hospital for Children in Indianapolis; Deaconess Hospital and St. Mary's Hospital in Evansville; Memorial Hospital in South Bend; and Parkview Hospital in Fort Wayne. In addition, there is growing interest in trauma center development from a hospital system in Northwest Indiana.

Although these seven hospitals collect and analyze data from their trauma centers, there is no systematic examination of trauma care provided across Indiana. The implementation of an Indiana State Trauma Registry, slated for May 2007, will help to remedy this problem. The State Trauma Registry will initially collect data from the seven trauma center hospitals and gradually expand to other hospitals in Indiana.

Subcommittees of the Task Force continue to address the development of a hospital designation process, financing, system development and maintenance, protocols, information management, and education. A short educational DVD entitled "When Minutes Matter," developed by St. Mary's Hospital and based on a similar DVD from the American Trauma Society, is available. "When Minutes Matter" graphically portrays what trauma centers and a trauma system accomplish, presenting the true story of a child severely injured in a motor vehicle crash in Evansville, Indiana.

Indiana does a respectable job of managing trauma care, but many people working in the delivery of medical care are aware of situations where appropriate or timely evaluation and patient care were not provided. A statewide trauma system will help to examine such circumstances, assess hospital capabilities across Indiana, and determine ways to improve the system.

Establishment of a program at the Indiana State Department of Health to accomplish a statewide trauma system will promote work on the important public health and health care delivery issue of trauma, which has a major impact on the lives of Hoosiers, which can be enhanced by the development and utilization of the Indiana Health Network.

2. Indiana USDA Sponsored Report from 2002: In 2001, the Indiana General Assembly asked the Indiana Rural Development Council to develop a rural economic development strategy to assist Indiana's rural residents to improve their quality of life and to help promote successful and sustainable rural communities. This work was completed in conjunction with the Indiana USDA office, and full report was issued in October 2002.

The report captured the work of over 150 people statewide who participated in ten (10) focus groups. The recommendations strongly align with the project deliverables of the Indiana Health Network in the following ways:

b. Technology Infrastructure from 2002 study:

- Recommendation: encourage rural counties to look for regional solutions to meet their telecommunications needs and those of existing business and industry.

c. Community Infrastructure from 2002 study:

- Recommendation: Improve local government capabilities for master planning. Improve access to free, useful, state technical assistance on projects.

d. Local Access from 2002 study:

- Improve access to preventive, specialty, and primary health care services (medical, mental health, and dental) for rural residents
- Strengthen and develop the state's system of health clinics in medically underserved areas of rural Indiana. Encourage the private provider system to develop facilities and resources where they are needed.
- Offer broadband access to rural health clinics, hospitals, and other rural providers, allowing distance education, advanced telecommunications, telehealth, and telemedicine to be utilized on a statewide basis.
- Overcome financial, physical, regulatory, and communication obstacles to providing broadband access between providers across Local Access and Transport Areas (LATA's)
- Move toward reimbursement for consultations provided via telemedicine at the same rate as direct patient consultations.
- Improve training and education for paramedics and other emergency personnel via videoconferencing and other advanced technologies.

e. Distribution of Resources from 2002 study:

- Encourage the equitable availability of state-of-the-art equipment needed for basic health care in rural areas of the State.
- Create incentives to encourage rural hospitals and other rural providers to share technology, equipment and scarce professional staff Provide a State match for

capital investments by multiple rural providers, where the service is needed, and where joint projects avoid duplication.

f. Manpower issues from 2002 study:

- Designate areas of personnel shortage, poor health, and medically underserved, and then provide technical and financial assistance, as well as targeted financial incentives and indirect supports to the rural communities.
- Support activities most likely to locate, retain, and advance mental health professionals in rural areas with special emphasis on high speed, broadband access that would allow videoconferencing, telehealth, advanced telecommunications, and telemedicine to flourish.
- Encourage the state EMS commission to develop a plan that emphasizes distance education and use of videoconferencing technology to enhance available paramedic services in every county in Indiana.

g. Public Policy issue from 2002 study:

- Promote increase in Indiana's share of the federal rural health resources.
- Remove administrative barriers to using existing health care providers and resources in rural areas, consistent with other states.

h. Telecommunications Infrastructure issues from 2002:

- Provide funding and technical support to all communities to improve telecommunication infrastructure
- Include local planners in public and private development of telecommunications infrastructure and the connectivity to it.
- Encourage local governments to include telecommunication infrastructure in the planning process.

i. Technology and Education issues from 2002:

- Identify regional solutions to meet the critical mass and provide telecommunications services in an economic fashion.
- Identify successful initiatives implemented by other states that encourage deployment of needed telecommunications infrastructure or services.
- Utilize public-private partnerships to conduct a bi-annual assessment of telecommunications services in rural Indiana.
- Assist in state-wide telecommunications infrastructure studies.
- Work with the Indiana Homeland Security Office to include coordinated telecommunications planning and deployment as part of the federally funded program.
- Pursue federal funding opportunities for deploying communications infrastructure related to telemedicine and rapid bio-terrorism information dissemination through the Indiana State Department of Health.

j. Outreach and Awareness

- Identify one organization to serve as a clearinghouse for telecommunication information and programs that are available.

- Establish public/private technology councils to address needs at the local level, and this work would integrate into an overall state technology plans.
- Facilitate continued conversation on telecommunications issues to those local officials, who are ready to work on the program, are aware of available technical support and financial resources.
- Identify opportunities for telemedicine and other services, such as remote continued professional development and licensing.

k. Economic Development issues from 2002:

- Authorize a cooperative arrangement for developing telecommunications services to rural regions, counties, and municipalities in Indiana. This would allow local partnerships to address economic development challenges and opportunities that require more advanced technology applications. Tools to promote technology based economic development include: local ISP services, high speed telecommunications service expansion, computing devices expansion.
- Explore regional solutions, which could meet the critical mass for economically providing service.
- Identify one organization to serve as a clearinghouse for telecommunications information.
- Promote case studies, particularly examples from the manufacturing industry, that highlight the value of technology investment both in terms of customer satisfaction, market competitiveness, and operating efficiency through organizational newsletters, conferences, web sites, etc.
- Provide financial incentives so that economic development officials can help provide services to smaller businesses located in areas of low population density. Traditional state infrastructure development programs need to be re-examined and modified to recognize the technology demands of industry and communities today.
- Create a fund to partner with small communities to bring telecommunications infrastructure to their areas.

3. Indiana RISE 2020 Rural Strategy Development - 2006 / 2007: In July 2005, Lieutenant Governor Becky Skillman appointed a statewide Strategic Planning Committee, to assist the Daniels Administration in framing a vision and strategic framework for the newly created Indiana Office of Community and Rural Affairs, and to link these governmental efforts with other public, private and philanthropic initiatives, to enhance the quality of life and economic vitality of Indiana's rural countryside.

In the ensuing six months, over 150 Hoosiers, representing the broad diversity of institutions, organizations, governments and constituencies of our state, have worked diligently to create a contemporary, dynamic vision for the future of rural Indiana, and to build the platform and mobilize the constituencies necessary to integrate these disparate resources and begin the common journey toward this vision. At one stage in the process in 2006, the following goals were outlined in the RISE 2020 initiative.

- a) Rural Health Goal I: **To** create a health and human service delivery system that is viewed as the ***national model*** for addressing the special needs and circumstances of those living in rural areas.
- b) Rural Health Goal II: **To** increase funding for Indiana health and human service programs from Federal, State, and private sources through grants; collaborative agreements amongst diverse organizations; advocating for ***equitable distribution of dollars to rural and urban areas***; reducing urban bias associated with State statute match requirements; and others as deemed appropriate.
- c) Rural Health Goal III: **To** insure that all residents of Indiana have ***reasonable access*** (geographically **and** financially) to basic medical care and health services including mental, preventive, and oral health services.
- d) Rural Health Goal IV: **To** improve the recruitment and retention rates of rural health care providers in Indiana.
- e) Rural Health Goal V: **To** increase ***patient safety and quality initiatives*** among rural health care providers including but not limited to rural hospitals, rural health clinics, Federally Qualified Health Centers,, State funded Community Health Centers, and private health care providers.
- f) Rural Health Goal VI: **To increase the number of rural communities/health care providers with adequate access to high speed connectivity and communications technologies capable of ,supportingtelehealth and telemedicine applications.**
- g) Rural Health Goal VII: **To** increase the number of education and networking opportunities for Indiana's rural health care providers.
- h) Rural Health Goal VIII: **To** increase the participation of Indiana rural health providers in health and wellness activities that promotes prevention and individual responsibility, especially in the areas of obesity prevention through good nutrition, exercise, and tobacco use cessation.
- i) Rural Health Goal IX: **To** build a disaster management (emergency preparedness) framework that will enhance Indiana's capacity to respond and adjust to catastrophic events and losses.
- j) Rural Health Goal X: **To** increase data collection among rural health providers (ie: services provided, utilization of sliding fee scales, ***high speed connectivity and communications technologies***, disaster management plan, areas of need, etc.) in order to facilitate increased use of evidence based and results oriented programming.
- k) Rural Health Goal XI: **To** increase Federal and State legislation that benefits citizens and health care providers in rural Indiana.

Nine of the eleven previously stated goals, which are in bold font, relate directly to the work of the *Indiana Health Network* as described in this document which provide sound evidence of the proposed networks strategy alignment with that of the State of Indiana in regards to rural development.

4. Purdue Regenstrief Telemedicine Study from 2006: Purdue University's Regenstrief Center for Healthcare Engineering coordinated a statewide forum on the subject of Telemedicine in fall of 2005. Dr. Pam Whitten, Ph.D. a nationally recognized expert in the development of telemedicine, facilitated these meetings with over 100 key stakeholders from health care providers, payers, private industry, state government, and the research community. Dr. Whitten issued her report for Indiana later in 2006 and instantly became a foundational document on the current state of Telemedicine in Indiana. The report also identified key policy issues that needed to be addressed, while providing an inventory of current Indiana telehealth activity.

5. Indiana State Department of Health – Telemedicine Report – 2007: In the report “Bridging the Life Span: Technology in the Future of Indiana’s Rural Healthcare Providers” the authors develop 17 objectives that would improve adoption and utilization of telehealth in Indiana. Eleven of the 17 objectives and all of the goals identified in this report are addressed by the *Indiana Health Network* and are listed below.

- Goal 1: Coordinate statewide health technology development efforts
- Goal 2: Promote greater use of existing connectivity resources
- Goal 3: Leverage Indiana’s incumbent resources to expand health technology and services.
- Goal 4: Promote uniform connectivity models for healthcare providers
- Goal 5: Better integrate public health priorities into health technology development efforts
- Goal 6: Support the development of health care services, targeted at shortage areas, through new and existing programs

6. Indiana Medicaid Policy – Approval for Telemedicine Payment – 2007: After a two year negotiation with the health care provider community, on April 3, 2007 Indiana Medicaid issued final rules in the Indiana Register for the payment of telemedicine services. This represents a significant change in that hospitals and physicians can now begin to develop new systems of care that include telehealth applications, and those applications can now be reimbursed at levels that cover a portion of the professional fees of the providers, as well as the telecommunications charges incurred to use this type of (distance medicine application).

7. Senate Bill 566 – Medical Informatics Focus in 2007: Senate Bill No. 551 was introduced into the Indiana Senate in early February 2007. This is one of several recent legislative efforts initiated to update and upgrade outdated systems of information management in Indiana. In synopsis, the Indiana health informatics corporation establishes the Indiana Health Informatics Corporation (IHIC) and will require the IHIC to encourage and facilitate the development of health informatics functions in Indiana.

The bill will allow IHIC to form a governance structure and board consisting of the following seven members: (1) Secretary of the Family and Social Services Administration or a designee, (2) State Health Commissioner or a designee, and (3) Five individuals appointed by the Governor. Senate Bill No. 551 authorizes the IHIC board to appoint any advisory panels that the board considers useful in advising the board and the corporation on issues determined by the board.

The bill also requires the IHIC to do the following: (1) Encourage and facilitate the development of a statewide health information exchange system, (2) Encourage and facilitate users of the statewide health information exchange system and other interested parties in developing and adopting standards, (3) Develop programs and initiatives to promote and advance the exchange of health information, (4) Recommend policies and legislation that advance the development and efficient operation of the statewide health information exchange system, and (5) Report on Indiana's progress toward implementing the statewide health information exchange system.

8. Indiana Office of Rural Health – Rural Health Works Project – 2004 to Present: The Indiana Office of Rural Health, in conjunction with the Indiana Rural Health Association engaged in rural economic development studies in 21 of 35 Critical Access Hospital markets from 2003 to 2005. For the purpose of these studies, a contract was established with Dr. Paul McNamara at the University of Illinois to deploy the Rural Health Works program.

The purpose of Rural Health Works is to provide a process by which community residents can evaluate their local health system and understand its economic value to the market and community. The process leads to increased use and expansion of health services and ensures the existence of health services. Rural Health Works engages community residents in local health care decision-making by showing them the importance of the health care sector to their local economy. The hard facts are illustrated with locally specific numbers and are the key to obtaining local participation. Rural Health Works teaches the process to state professionals so they can employ the process in their rural communities. To date 38 states have been trained in Rural Health Works to assist with community planning and rural economic development efforts.

Communities know that health care is critical to the physical and mental well being of its citizens. However, health care is also critical to the economic well being of a community. If local health care should disappear, as much as 20% of the local economy would go with it. For purposes of this project and the *Indiana Health Network*, there will be a strong effort to make each rural hospital the anchor-tenant in rural communities for the bandwidth services that are being delivered. In order to achieve sustainability of the Indiana Health Network and overall telecommunications infrastructure: both rural communities and rural hospitals must work together. If rural communities are to prosper they must be economically integrated and should act with the understanding that:

- Industries do not and should act alone within an economy;
- There is economic development interconnectedness in local communities;
- Firms are reliant on each other for goods and services.

In turn, other local businesses including home care, physician offices, pharmacy providers, durable medical equipment offices, transportation providers, and state / local government can all benefit from the inter-connectivity with the local hospital.

Hospitals that are located within rural communities are in jeopardy, which is evidenced by the fact that rural hospitals across the country and within the State of Indiana are closing and/or are not strong economically. Health care services are being cut. Physicians will not come to the rural areas and if they do come, they usually won't stay. Medicare and Medicaid payments are too low

and have recently been cut. Despite these challenges rural residents can revitalize their local health care systems and Rural Health Works provides the tools to do just that. Local visionary leadership puts these tools to work through state-trained teams that act as facilitators to the local community leadership. These training sessions occurred in 2004 with several critical access hospital leaders in attendance and the training is being offered once again by the Indiana Office of Rural Health in May-2007.

The value of each community report is illustrated in the data, On the next page is a sample of 8 of the 21 Critical Access Hospital's data and analysis that was provided by Rural Health Works.

County	Jobs in Health Care Sector	Jobs Related to Health Care Sector	Incomes in Health Care Sector	Total Incomes related to Health Care
Clay County	720 jobs	1,040 jobs	\$13.7 million	\$19.2 million
Clinton County	793 jobs	1,319 jobs	\$35.6 million	\$36.2 million
Gibson County	1,198 jobs	1,731 jobs	\$37.4 million	\$52.5 million
White County	465 jobs	650 jobs	\$13.2 million	\$17.1 million
Orange County.	531 jobs	781 jobs	\$15.2 million	\$21.2 million
Wabash County.	1,851 jobs	2,557 jobs	\$40.9 million	\$54.5 million
Madison County	6,309 jobs	11,285 jobs	\$193.9 million	\$304.4 million

Given the demonstrated impact of health care on local rural communities, it is believed that there is a strong case for building community partnerships with each local hospital and making sure that the *Indiana Health Network* is a part of local economic development planning. If rural hospitals can link industry to the network then sustainability will follow given the fact that there will be increased utilization of broadband.

9. Internet2 Strategy Development: The Indiana Health Network would utilize the experience and expertise of the Indiana University Global Research Network Operations Center, to connect to the Gigapop, Internet2 and National Lambda Rail. The Indiana Gigapop is a project of Indiana University and Purdue University. Since 1999 the Gigapop has provided higher education institutions access to national research and education high performance networks. Both the Internet 2 network and National Lambda Rail networks, as well as commodity internet are available today via the Gigapop. The *Indiana Health Network's* connection to Internet2! would be aggregated and provided at one fee that would service all network members. The Indiana Rural Health Association has received a commitment from the Indiana University GRNOC to provide the network with connection to Internet2 once operational. This would effectively expand the footprint of Internet2.

10. Purdue University Regenstrief Center's \$1 million for Partnership to Research the Benefits of Telehealth Networks 2007 - 2009: A new \$1 million partnership that includes Purdue's Regenstrief Center for Healthcare Engineering will focus on how telehealth networks can meet the needs of rural and underserved residents in Indiana, Michigan and Kansas. This program has been implemented by Regenstrief, and began in 2007. The national Office for the